7.1 Potentiometer Position Calibration (continued)

4. Place the calibrated Protractor with 1° accuracy across the carriage and press the Up and Down Arrow button on the Pendant until the protractor reads zero. See Figure 7.4.

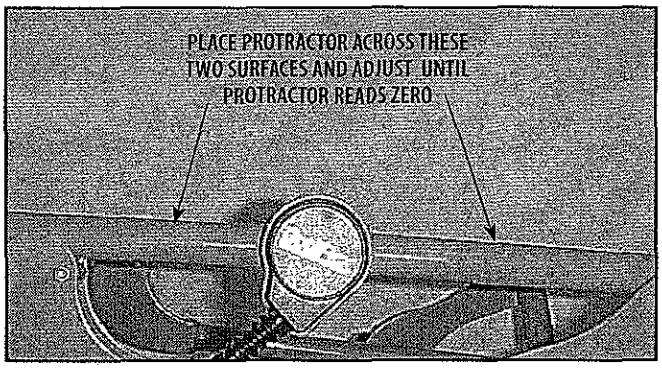


FIGURE 7.4

5. With the 3/32" Allen Wrench, loosen the two set screws retaining the potentiometer. See Figure 7.5.

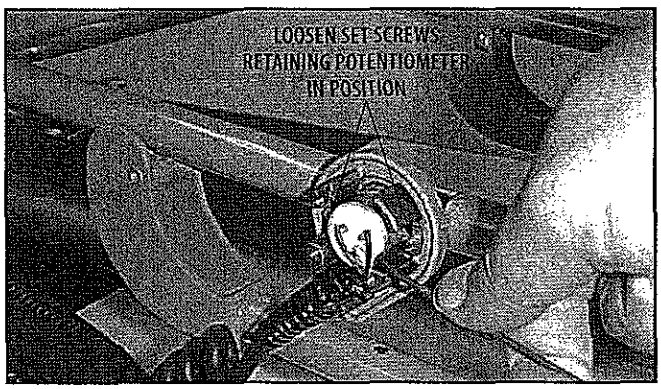


FIGURE 7.5

6. Connect the negative (black) lead from the Digital Multimeter to the Motor Control Board Mounting Bracket and the Positive (red) Lead to the Red Wire on the Potentiometer. See Figure 7.6.

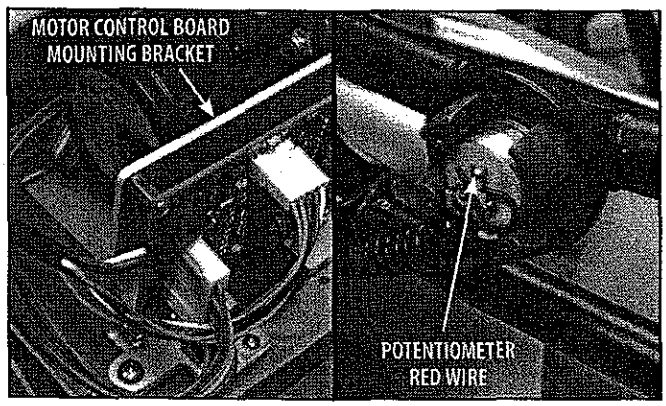


FIGURE 7.6

7. Rotate the Potentiometer by hand until 1.018 Volts (± .018 Volts) is displayed on the Digital Multimeter. See Figure 7.7.

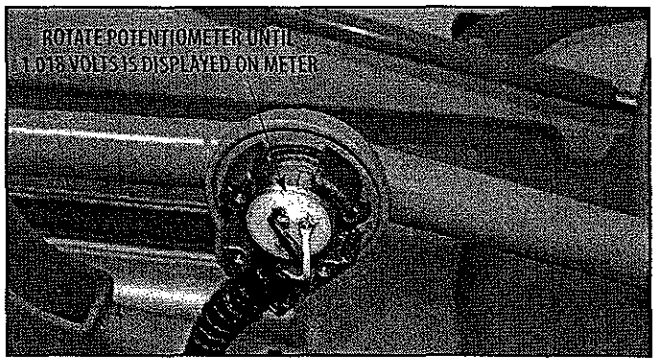


FIGURE 7.7

8. Torque the two potentiometer set screws with the preset 5 inch-pound "T"-Handle Torque Wrench. Verify voltage. See step 7.
9. Press the Extension button. This programs the zero position in the software.
10. Press the Up Arrow button until the front of the Carriage Guide Bar is approximately 1.250" (32 mm) from the cut out in the Front Cover. See Figure 7.8.

NOTE:
If the Carriage is moved too far, an Error Message will display. It will then be necessary to manually move the Carriage by physically rotating the motor gears or adjusting the Femur Bar until the Carriage Guide Bar is approximately 1.50 inches (38 mm) from the cover cut out to cancel Error.

If the Carriage is required to be manually moved, then it will be necessary to re-start the Initial Position Calibration Procedure. Refer to 7.1, part C.

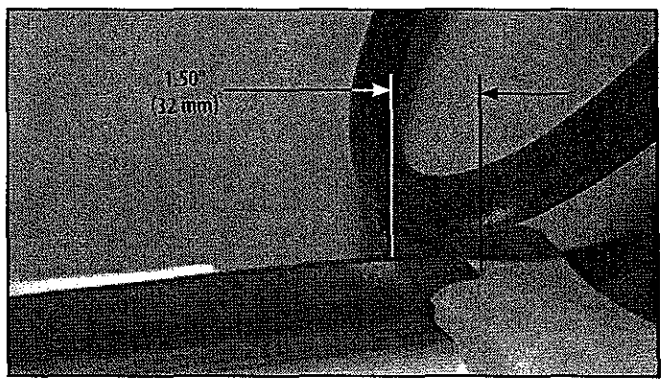


FIGURE 7.8

11. Press the Flexion button. This programs the upper limit position in the software.
12. Install the Potentiometer Cover and Decal.
13. Power unit off and on. This completes Potentiometer Position Calibration.

7.2 Force Reversal Calibration

Perform this procedure quarterly.

A. Position Carriage

Move the carriage to a position of -5° to -10°.

B. Set Unit to Force Reversal Calibration Mode

While holding down the "SPEED" button, press the following buttons in the sequence listed:

1. Progressive ROM
2. Fast Back
3. Oscillation Zone
4. Mode
5. Release the Speed button. "STAND BACK! Unit Self Calibrating" should be displayed at the bottom of the Pendant display and a Timer should begin counting down from approximately 30 sec. See Figure 7.10.

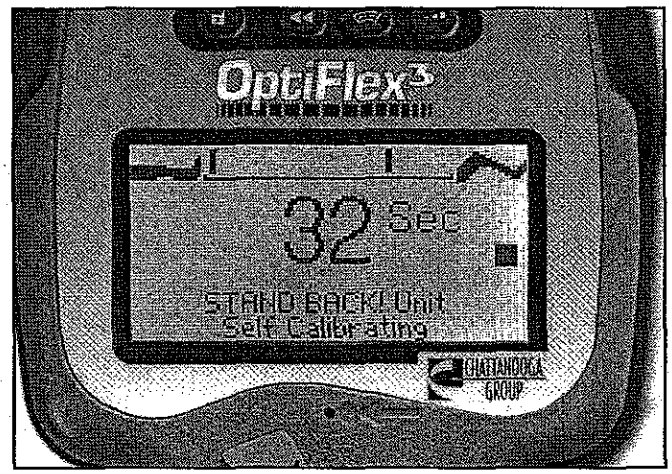


FIGURE 7.10

6. After all movement of the unit has stopped, the display will prompt the technician to turn the unit off and back on. See Figure 7.11. This completes Force Reversal Calibration.

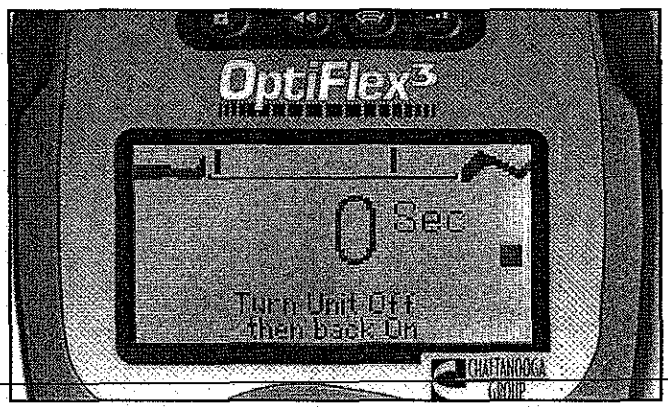
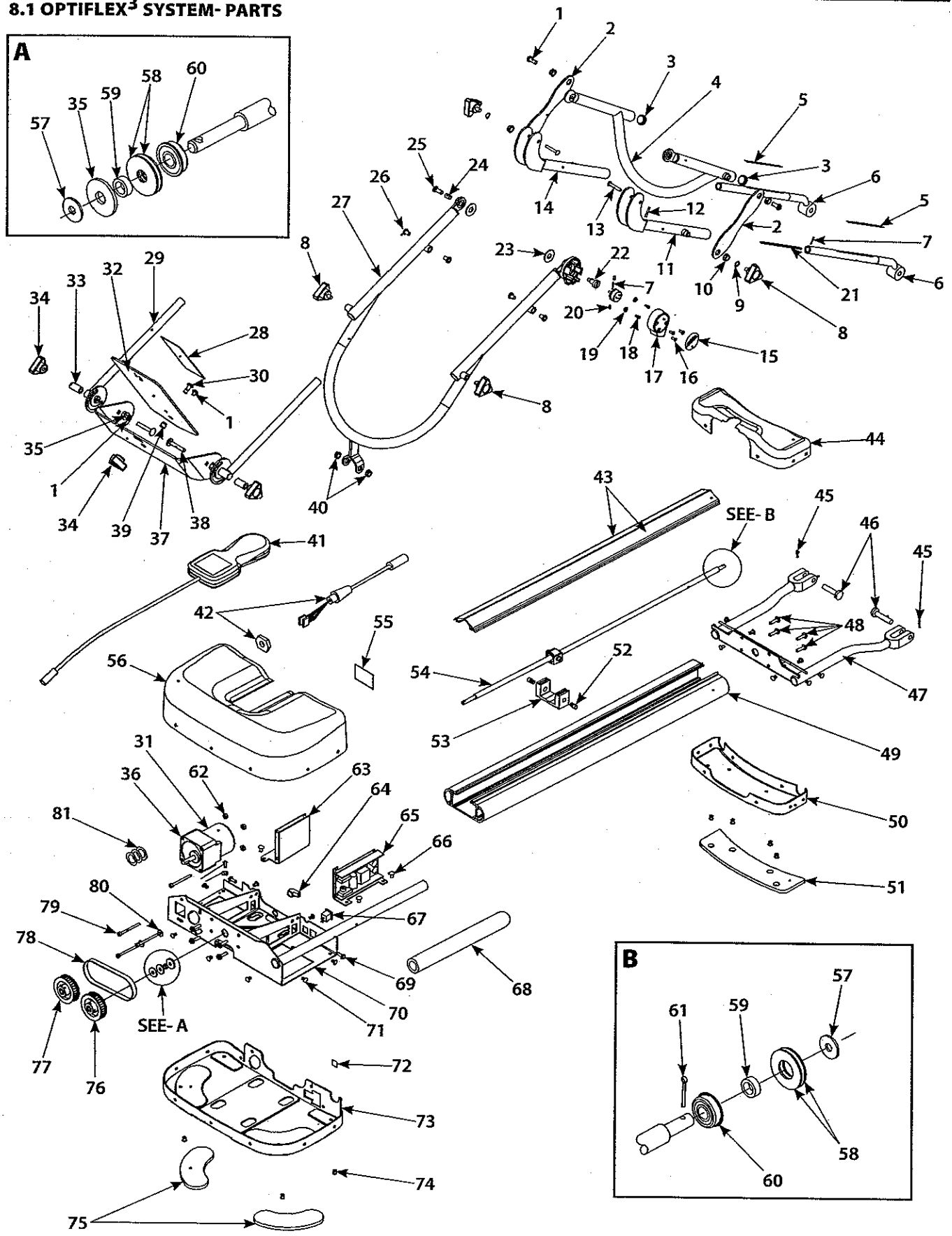


FIGURE 7.11

MAINTENANCE & CALIBRATION RECORD

MAINTENANCE & CALIBRATION RECORD

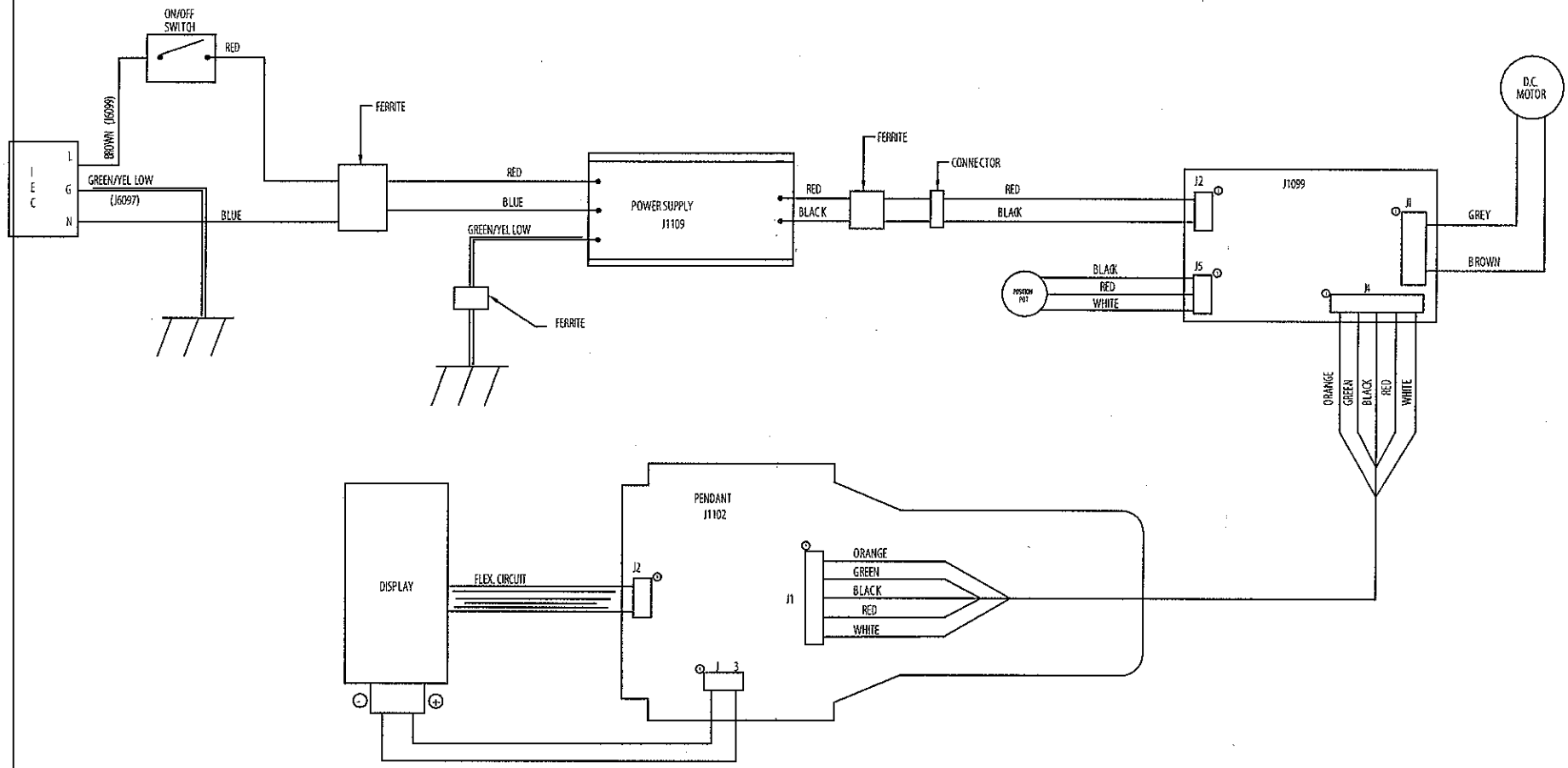
8.1 OPTIFLEX3 SYSTEM- PARTS



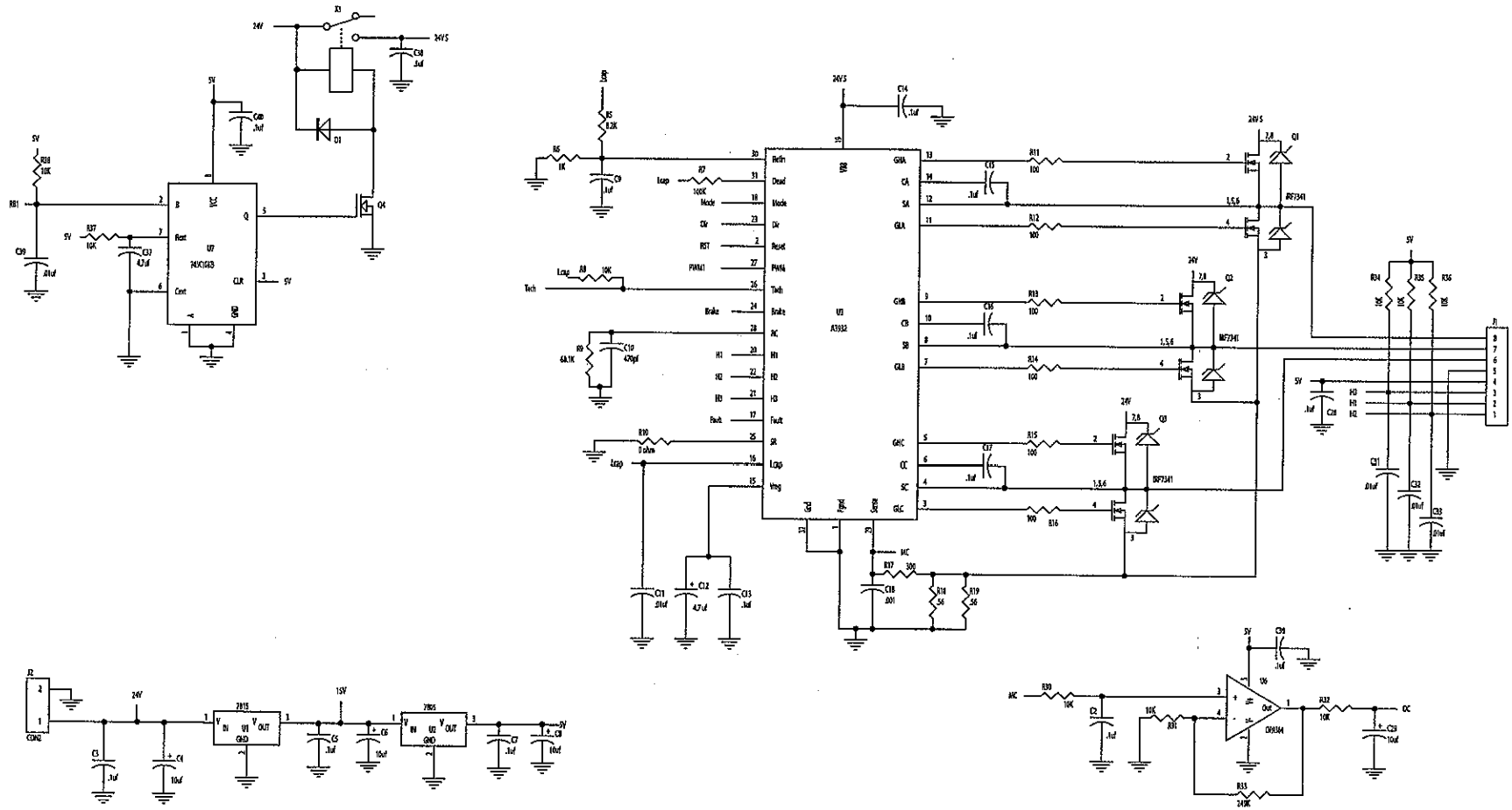
8.1 OPTIFLEX^3 SYSTEM- PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	62066	SCREW, 1/4-20 X 5/8"	5
2	J1117	FEMUR LINKAGE	2
3	65991	TUBE PLUG	2
4	J1114	THIGH S/A	1
5	J6091	DECAL, THIGH SCALE	2
6	J1086	WELDMENT TUBE	2
7	J6023	SPLIT PIN, 1/16" X 9/16"	2
8	J6012	KNOB, MALE 1/4"-20	4
9	J6051	SNAP RING	2
10	J6005	BEARING, SPLIT FLANGE	4
11	J1115	LEFT FEMUR HINGE	1
12	87398	SPLIT PIN, 1/8" X 3/4"	1
13	J6027	RIVET, FEMUR HINGE	2
14	J1118	RIGHT FEMUR HINGE	1
15	J6107	DECAL, POT	1
16	J6024	SCREW, #6-32 POT MOUNT	3
17	J6105	COVER, POT	1
18	J6002	SCREW, #4-40	2
19	J6003	SERVO MOUNT CLEAT	2
20	J6022	TUBE, POT PIN	1
21	J1063	FEMUR BAR CATCH	1
22	J1041	PIN, POT PIVOT	1
23	J6006	WASHER, .312 ID X 1" OD	2
24	J1061	SLEEVE, CARRIAGE PIVOT	1
25	J6007	SCREW, 1/4"-28 X 5/8"	1
26	21179	WASHER, NYLON	4
27	J1116	CALF S/A	1
28	J1067	VELCRO HOOK	1
29	J1036	FOOT ROD S/A	2
30	62066	SCREW, 1/4-20 X 5/8"	5
31	21176	MOTOR, BRUSHLESS	1
32	J2014	FOOT PLATE	1
33	J6029	SPACER, NYLON FOOT	2
34	J6011	KNOB, FEMALE	3
35	J6044	WASHER	3
36	40100	GEAR BOX	1
37	J2013	FORMED FOOT PLATE	1
38	J6025	STOVE BOLT	2
39	J1071	PIN, FOOT ROTATION	1
40	J6001	BEARING, SPLIT FLANGE	2
41	J6087	PENDANT, OPTIFLEX 3 KIT	1
42	89852	CABLE, PENDANT ASSY	1
43	J1025	WIPER	2
44	J6103	COVER, FRONT TOP	1

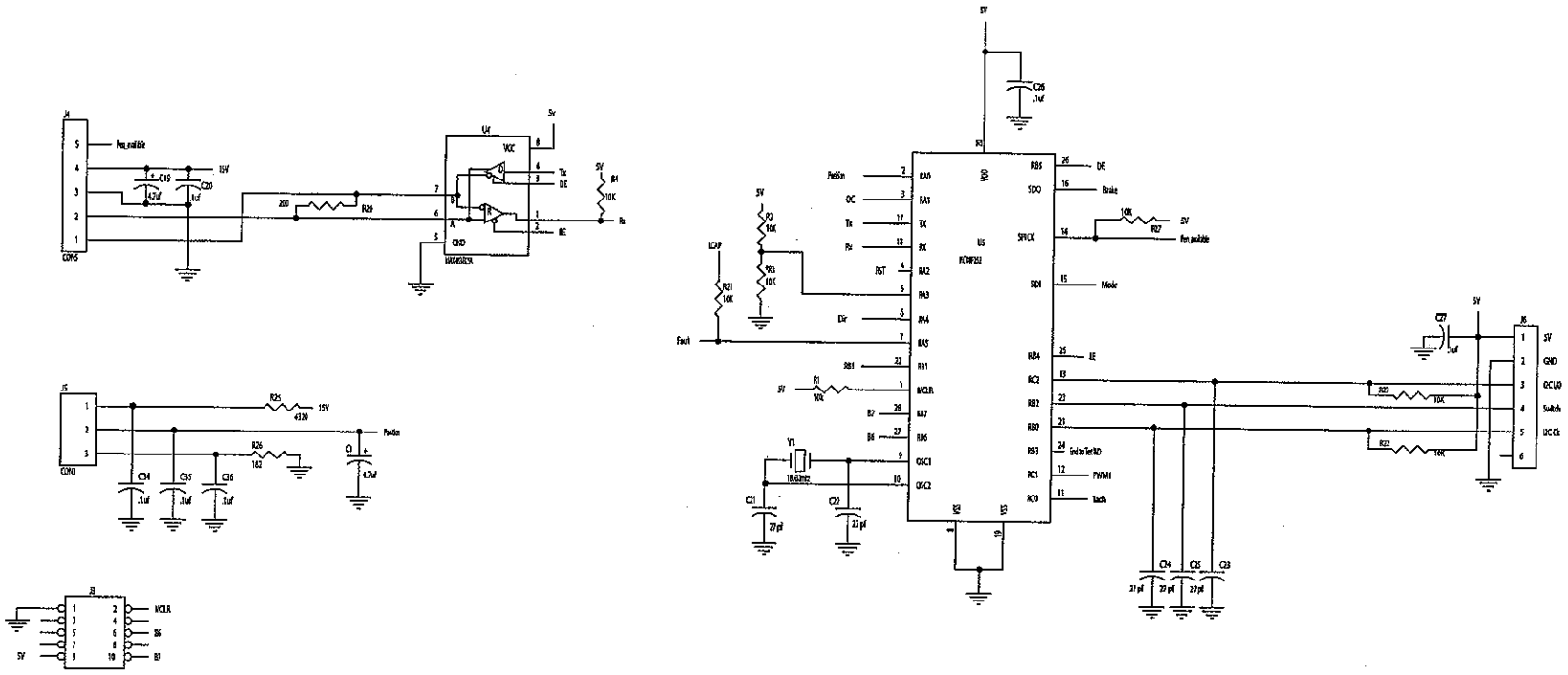
ITEM	PART NO.	DESCRIPTION	QTY
45	54931	PIN, SPLIT 3/32" X 5/8" PLT	2
46	J1089	CLEVIS PIN, 1/4" X 1-3/8" SS	2
47	J1131	WELDMENT, BASE FRAME	1
48	J6000	SCREW, #10-24 SELF TAP	8
49	J2003	EXTRUSION	1
50	J6104	COVER, FRONT BOTTOM	1
51	J1058	PAD, FRONT	1
52	J1055	PIN, TRUNION	2
53	J1034	SLIDER	1
54	J2004	ACME ROD	1
55	20993	DECAL, PENDANT REMOVAL	1
56	J6089	COVER, REAR TOP	1
57	J6064	WASHER, FLAT BEARING	2
58	J6009	BEARING, ROLLER	2
59	J1072	BUSHING, NYLON 3/8" OD	2
60	J6008	BEARING, FLANGE	2
61	J6035	PIN, COTTER	1
62	21733	NUT, #6-32 ESNA	4
63	J6088	BOARD, MOTOR CONTROL	1
64	J6065	STRAIN RELIEF	1
65	J1109	POWER SUPPLY	1
66	71319	SCREW, #6-32 X 1/4"	5
67	J6058	SWITCH, ROCKER	1
68	68964	FOAM, HANDLE GRIP	1
69	53793	SCREW, #10 X 1/2" PAN TEK	2
70	J1111	BASE, REAR S/A	1
71	J6004	NYLON SNAP RIVET	19
72	J2030	DECAL, POWER OFF/ON	1
73	J6090	COVER, REAR BOTTOM	1
74	66058	RIVET	8
75	J1057	PAD, REAR	2
76	J2001	PULLEY, BALL SCREW	1
77	J2002	PULLEY, MOTOR	1
78	J2000	DRIVE BELT	1
79	J6048	SCREW, #8-32 X 2.0" SOC HD	4
80	70105	WASHER, #10 FLAT	3
81	J6054	O-RING	3
	J6040	KNEE POT CABLE (NOT ILLUSTRATED)	1



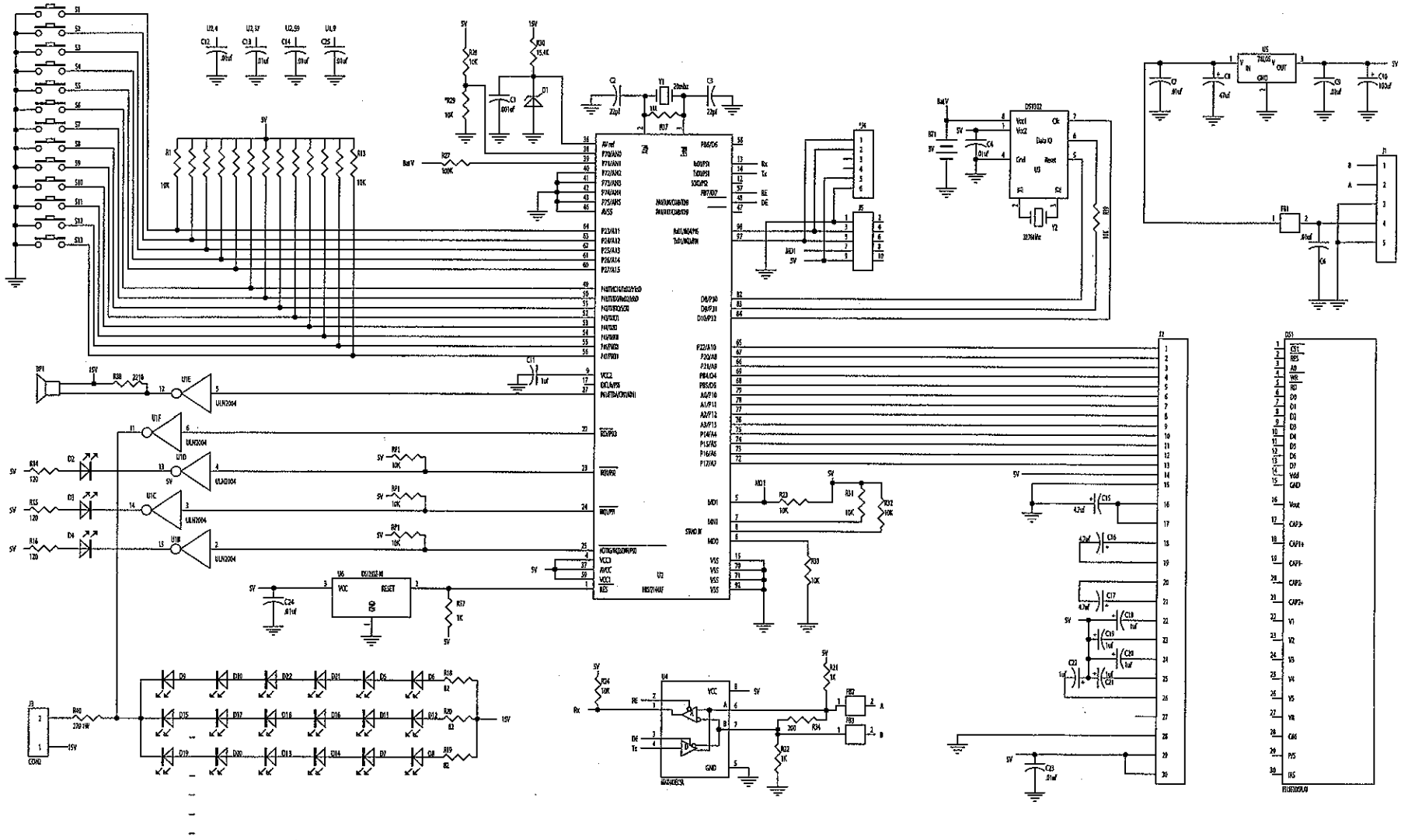
OptiFlex³ Model 2090 Block Diagram



OptiFlex³ Model 2090
Motor Control Board
Sheet 1 of 2



OptiFlex³ Model 2090
Motor Control Board
Sheet 2 of 2



OptiFlex³ Model 2090 Pendant

Chattanooga Group ("Company") warrants that the OptiFlex3 Continuous Passive Motion (CPM) therapy unit ("Product") is free of defects in material and workmanship. This warranty shall remain in effect for two years (24 months) from the date of original consumer purchase. If this Product fails to function during the two year warranty period due to a defect in material or workmanship, the Company or the selling dealer will repair or replace this Product without charge within a period of thirty days from the date on which the Product is returned to the Company or the dealer.

All repairs to the Product must be performed by a service center authorized by the Company. Any modifications or repairs performed by unauthorized centers or groups will void this warranty.

The warranty period for accessories is thirty days. Accessories consist of the Patient Softgoods Kit shipped with the unit.

To participate in warranty coverage, this Product's warranty registration card (included with Product) must be filled out and returned to the Company by the original owner within ten business days of purchase.

This Warranty Does Not Cover:

- Replacement parts or labor furnished by anyone other than the Company, the selling dealer, or a certified Company service agent.
- Defects or damage caused by labor furnished by someone other than the Company, the selling dealer, or a certified Company service agent.
- Any malfunction or failure in the Product caused by product misuse, including, but not limited to, the failure to provide reasonable and necessary maintenance or any use that is inconsistent with the Product User Manual.

COMPANY SHALL NOT BE LIABLE IN ANY EVENT FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some locations do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
To obtain service from Company or the selling dealer under this warranty:

1. A written claim must be made within the warranty period to the Company or the selling dealer. Written claims made to the Company should be sent to:

   4717 Adams Road
   P.O. Box 489
   Hixson, TN 37343 USA
   Phone: USA: (800) 592-7329
   Fax: (423) 875-5497
   Canada: (800) 361-6661
   Outside USA: +1 (423) 870-7200
   Outside USA Fax: +1 (423) 870-2046

2. The Product must be returned to the Company or the selling dealer by the owner.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state or location to location.
The Company does not authorize any person or representative to create for it any other obligation or liability in connection with the sale of the Product. Any representation or agreement not contained in the warranty shall be void and of no effect.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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